

LISTING OF THE CLAIMS

1-75. (Cancelled).

76. (Currently Amended) The method of claim [[75]] 88, wherein said metal precursor is titanium and a single gas serves as said metal precursor and said nitrogen precursor.

77. (Previously Presented) The method of claim 76, wherein said metal and nitrogen precursor is $Ti(N(CH_3)_2)_4$.

78. (Currently Amended) The method of claim [[75]] 88, wherein said wafer is heated to a temperature of approximately 250-550°C.

79. (Previously Presented) The method of claim 76, wherein said metal and nitrogen precursor is of the formula $Ti(NR_2)_4$, where R is selected from the group consisting of one or more of hydrogen, an alkyl group and an aryl group.

80. (Currently Amended) The method of claim [[75]] 88, wherein said aluminum precursor is selected from the group consisting of DMEAA, dimethylaluminumhydride ethyldimethylamine adduct, dimethyl aluminum hydride, an alkyl aluminum compound, an alkylaminealuminum compound, and any adducted complexes of the above-named aluminum-containing compounds.

81. (Currently Amended) The method of claim [[75]] 88, wherein said selected metal precursor is selected from the group consisting of tetrakisdiethylamidotitanium, bis(2,4dimethyl)(1,3-pentadienyl)titanium, titanium tetrachloride, titanium tetrabromide, titanium tetraiodide, and cyclopentadienylcycloheptatrienyltitanium.

82. (Currently Amended) The method of claim [[75]] 88 wherein said metal precursor is selected from the group consisting of metal halide compounds and organometallic compounds.

83. (Currently Amended) The method of claim [[75]] 88 wherein said boron precursor is a boron reactant gas.

84. (Currently Amended) The method of claim [[75]] 88 wherein said nitrogen precursor is a nitrogen reactant gas.

85. (Currently Amended) The method of claim [[75]] 88, wherein at least one of said precursors is introduced into said chamber in gaseous form said amorphous alloy is deposited as a layer comprising $M_xAl_yN_zB_w$, wherein M is said first metal, x, y and z are each greater than zero, and w is between about 0.35 and about 1.4.

86. (Currently Amended) The method of claim [[75]] 88, wherein at least one of said precursors is are introduced into said chamber through a bubbler substantially simultaneously.

87. (Cancelled).

88. (Previously Presented) A method of depositing an amorphous alloy comprising a first metal, aluminum, nitrogen and boron on an object, comprising the steps of:

placing said object within a chemical vapor deposition chamber; and
injecting gaseous precursors of said first metal, aluminum, nitrogen and boron into said chamber, wherein each of said gaseous precursors is transferred from a

respective bubbler, each said respective bubbler and said chamber being at about a same pressure.

89. (Previously Presented) A method of depositing a generally conformal layer comprising a first metal, aluminum, nitrogen and boron on a semiconductor wafer, comprising the steps of:

providing a chemical vapor deposition reactor;

placing said wafer within said reactor;

heating said wafer to a selected processing temperature of from about 250 to about 550°C;

establishing a pressure of 100 millitorr to 10 torr within said reactor;

injecting a selected quantity of a gaseous organometallic precursor from a first bubbler into said reactor;

injecting a selected quantity of an aluminum precursor from a second bubbler into said reactor, said first bubbler and said second bubbler being at a pressure substantially the same as that within said reactor; and

depositing said first metal, aluminum, nitrogen, and boron as a layer comprising $M_xAl_yN_zB_w$, wherein M is said first metal, x, y and z are each greater than zero, and w is between about 0.35 and about 1.4.

90. (Original) The method of claim 89, wherein said aluminum precursor is selected from the group consisting of DMEAA, dimethylaluminumhydride ethyldiinethylamine adduct, dimethyl aluminum hydride, an alkyl aluminum

compound, an alkylaminealuminum compound, and adducted complexes of any of the above-named aluminum-containing compounds.

91. (Previously Presented) The method of claim 89, wherein said first metal is titanium and is deposited from a titanium precursor selected from the group consisting of tetrakisdiethylamidotitanium, bis(2,4dimethyl)(1,3-pentadienyl)titanium, titanium tetrachloride, titanium tetrabromide, titanium tetraiodide, cyclopentadienylcycloheptatrienyltitanium, and a precursor of the formula $Ti(NR_2)_4$, where R is selected from the group consisting of one or more of hydrogen, an alkyl group and an aryl group.

92. (New) The method of claim 89, wherein said organometallic precursor comprises titanium and nitrogen.

93. (New) The method of claim 92, wherein said organometallic precursor is $Ti(N(CH_3)_2)_4$.

94. (New) The method of claim 92, wherein said organometallic precursor is of the formula $Ti(NR_2)_4$, where R is selected from the group consisting of one or more of hydrogen, an alkyl group and an aryl group.

95. (New) The method of claim 89, wherein said aluminum precursor is selected from the group consisting of DMEAA, dimethylaluminumhydride ethyldimethylamine adduct, dimethyl aluminum hydride, an alkyl aluminum compound, an alkylaminealuminum compound, and any adducted complexes of the above-named aluminum-containing compounds.

96. (New) The method of claim 89, wherein said selected organometallic precursor is selected from the group consisting of tetrakisdiethylamidotitanium,

bis(2,4dimethyl)(1,3-pentadienyl)titanium, titanium tetrachloride, titanium tetrabromide, titanium tetraiodide, and cyclopentadienylcycloheptatrienyltitanium.

97. (New) The method of claim 89 wherein said organometallic precursor is selected from the group consisting of metal halide compounds and organometallic compounds.

98. (New) The method of claim 89 wherein said boron is included in said generally conformal layer utilizing a boron reactant gas.

99. (New) The method of claim 89 wherein said nitrogen is included in said generally conformal layer utilizing a nitrogen reactant gas.

100. (New) The method of claim 89, wherein said precursors are introduced into said reactor substantially simultaneously.